REPORT

OF THE

PRESIDENT OF THE GIRARD COLLEGE

TO THE

COMMITTEE ON INSTRUCTION.

SEPTEMBER 3, 1850.

JOSEPH COWPERTHWAIT, ESQ.,
Chairman of the Committee on Instruction in the Girard College for Orphans.

SIR:—

In compliance with certain resolutions of the Committee on Instruction, dated May 21st, 1850, and a resolution of the Board of Directors, passed July 2d, 1850, I submit the following report:

The Will of Stephen Girard requires that the orphans of this college shall receive thorough instruction, so far as their age and capacity will admit, in the various branches of practical knowledge. The ample endowment of the institution, the name of *college*, the time the scholars may remain within its walls, the extended course of study marked out in the Will, and the still wider range, which, by fair construction, the language of that instrument warrants, all justify the opinion that the founder intended to establish a seminary of learning of no common grade. But he foresaw that the same differences which are observable among children and youth else-

where, would exist among the orphans who would share his bounty, and he therefore provided, not only that the instruction given in the college shall be adapted to the capacity of the scholars, but that vice shall not remain to contaminate virtue by evil example, nor indolence to impede the progress of industry.

In the ordinance to provide for the opening of the institution, the Councils of the city have ordained that there shall be three departments of instruction in the college, to be designated the Primary, the Principal, and the Collegiate department. The primary department was organized early in 1848, and the principal department in April last. The collegiate department is to be organized when the advanced standing and education of the pupils may render it necessary.

As this ordinance was framed to carry out the intention of the testator, it must be construed in connexion with the part of his will to which it directly relates. This provides that the orphans admitted to the college shall be instructed in reading, writing, grammar, arithmetic, geography, navigation, surveying, practical mathematics, astronomy, natural, chemical and experimental philosophy, the French and Spanish languages, and such other learning and science as the capacities of the several scholars may merit or warrant. The will also declares that the scholars who shall merit it, shall remain in the college until they shall arrive at between fourteen and eighteen years of age, and then be bound out to suitable occupations. It is furthermore provided that if any of the orphans shall, from malconduct, have become unfit companions for the rest, and mild means of reformation prove abortive, they should no longer remain in the institution.

It is plain that Mr. Girard contemplated the division of the pupils into three classes: the first including all who might by malconduct forfeit the right to remain in the college; second, such as ought to be bound out to suitable occupations at the age of fourteen, or soon after; and third, those who should be permitted to remain in the college one, two, three or four years longer. As boys of fourteen years are rarely competent to learn such branches as navigation, surveying and astronomy, the testator could not have meant that

every pupil should be instructed in all the studies enumerated in his will. He must have intended that appropriate officers should decide, by reference to the age, application and capacity of each scholar, how many and what branches he should study, and how far he should pursue them.

On their admission to the college, the orphans are distributed according to the degree of their advancement in knowledge, among the classes of the primary school. As the instruction in this department is given by female teachers, it becomes a question of practical importance, to what age they should remain in it. Women possess many advantages as teachers of young children. The vocation is, indeed, theirs by natural right, which is nothing less than God's appointment. I see no sufficient reason for promoting the pupils from the primary to the principal department before they arrive at between eleven and twelve years of age. Some may remain in the primary school a year or two longer. The course of primary studies should be reading, writing, orthography, derivation and defining of words, English grammar and composition, ancient and modern geography, mental and practical arithmetic, vocal music, and an elementary History of the United States and of Pennsylvania. These branches will occupy boys of active minds up to the age of nearly twelve years. It is certain that dull scholars will not accomplish the course so soon.

PRINCIPAL DEPARTMENT.

The principal school will always be an important department of the institution, for it will be the nursery from which the scholars, whose minds are susceptible of the highest cultivation, will be transplanted to the collegiate classes, and from which the others will be removed to the occupations of industrious life. While the studies of the primary school should be pursued alike by all, the course of instruction in the principal department may be more flexible. Here the aptitudes of each boy should be carefully observed; and, to a certain extent, his studies should correspond to the bent of his mind.

The embryo linguist, who perhaps may have no talent for mathematics, should not be forced to waste his time, irritate his temper, and discourage his heart, in vain efforts to comprehend the higher and more abstruse relations of number and magnitude. The future naturalist should not be driven out of the career in which he may excel, and bound down to declensions and conjugations, farther than may be necessary for symmetrical mental culture. The pupils whose capacity will justify their aspiring to the collegiate course, should receive such instruction as will prepare them to enter that department with advantage, and others should be trained for usefulness and respectability in the occupations for which they may be destined. It may be proper, however, to mark out a general course of study for this school, and leave it to be decided, in each individual case, what deviation from this may be advisable or necessary. This course may be arranged in five departments, and will occupy the best scholars for a period of two years.

I.—ENGLISH DEPARTMENT.

1. English Grammar.
2. English Composition.
3. Reading—(Narrative, Rhetorical and Poetical.)
4. Vocal Music.
5. Book-keeping, including practical exercises in keeping accounts, posting, balancing, drawing bills, notes, receipts, &c.
6. Universal History.
7. Constitution of the United States and Pennsylvania, with an exposition of the rights and duties of citizens.
8. Elements of Moral Science.
9. Drawing—(Architectural and Mechanical.)

II.—MATHEMATICS.

1. Arithmetic.
2. Elementary Algebra.

3. Elementary Geometry.
4. Elementary Trigonometry.
5. Mensuration of surfaces and solids, especially of Artificers' work.
6. Theory of Logarithms and their applications.
7. Laws of Perspective.

III.—LANGUAGES.

1. French—Colloquial phrases and narrative reading. French Composition.
2. Spanish—Colloquial phrases and narrative reading. Spanish Composition.
3. Latin commenced.

IV.—GENERAL PHYSICS.

1. Elementary Natural Philosophy, with Lectures and Experiments.
2. Elementary Chemistry, with Lectures and Experiments.

V.—SPECIAL PHYSICS.

1. The connexion and dependence of the Mineral, Vegetable, and Animal kingdoms of Nature.
2. Classification of Animals, Plants, and Minerals.
3. Popular Zoology.
4. Economical Natural History, including the properties and uses of the various articles known in commerce, and used in the arts.

The arrangement of the departments made above, has no reference to their relative importance, nor to the rank or precedence of the Professors. In practice, the department in which the best instruction is given, will always be the most important; and the offi-

cial age of the incumbents, according to the usage of colleges, will determine the order of precedence among them.

It will be observed that several of the branches taught in the Primary School, are included also in the scheme for the Principal Department. English Grammar, Reading, Composition, History and Arithmetic are of this number. These branches should be taught in their elementary forms in the Primary School; but as the minds of the pupils become more mature, text-books of higher grade should be introduced, and the instruction should assume a more philosophical tone. Before their logical faculty is developed, children may learn *rules* and the *applications* of rules with much advantage; but afterwards they must study and comprehend the *reason* of the rules. In Arithmetic, for example, though a pupil under twelve years of age may become expert in the processes of computation, he is rarely able to understand the *rationale* of those processes. So in English Grammar, the young scholar readily learns the differences between the parts of speech; the distinctions of number, gender, and case; the forms of conjugation; and the rules of agreement and government. And he is ready to infer from this modicum of knowledge, that grammarians make grammar, and that grammar makes language. It is only when he becomes capable of understanding the principles of Universal Grammar, and has learned something of the sources of his own tongue, and has read the best writers in it, that he corrects his error, and discovers that language makes grammar, and every language its own grammar. In a word, he discovers that the grammarian is not an oracle, but only the priest that gives form to the response.

I have included French and Spanish among the studies of the Principal School, partly because instruction in these languages is required by the Will of Mr. Girard, and a majority of the scholars will have no subsequent opportunity to acquire them; and partly because the study of foreign languages is a valuable means of mental discipline. It has been said that he who learns a new language acquires a new *sense;* and it is equally true that he acquires a new *intellect.* It is also worthy of remark, that the pronunciation of foreign languages is acquired with greater facility at an early age,

while the vocal organs are flexible and elastic, than at any subsequent period of life.

Another obvious advantage will flow from the early instruction of the scholars in these languages. The degree of a boy's success in learning French and Spanish will be the measure of his fitness or unfitness for the study of other languages; and it may happen that an aptitude for these studies may decide the question of his admission to the collegiate department.

The Constitution of the United States, and of Pennsylvania, an exposition of the rights and duties of citizens, and some elementary work on moral science are believed to be studies well adapted to form and foster in the minds of the scholars a pure attachment to our republican institutions, and a sense of the moral obligations which bind men together as social beings.

The course in mathematics has been proposed with especial reference to the preparation of the orphans who will be bound out to trades at an early age, to make such computations as they will most frequently need in the various mechanical occupations. The course will be no less advantageous to the scholars who will advance to the collegiate classes, inasmuch as it will fit them for the more extended course of instruction which they will there receive in the same branches.

The instruction to be given in Natural Science to the scholars of the principal department ought to be elementary. The aliment must be so prepared that immature minds may be able to digest and assimilate it. The subjects should be arranged in their natural order, and illustrated by means of models, diagrams, specimens, apparatus, and experiments. The scholars should be taken by the hand, and led by easy steps through the right door into the vestibule of the great temple of nature. At a more advanced age they may enter her inner sanctuary without the risk of being blinded with excess of light.

As the successive collegiate classes will be formed by scholars from the principal school, it will be important that a sufficient number should be prepared, both in age and attainments, to advance from the primary school every year. The record of births of the

pupils now in the college will show that eighty-two of the primary scholars will be old enough for promotion to the principal department on the first day of January next. It is probable that sixty of these will be fit for admission to form the second class of the Principal School, and to complete its organization. This department will then be increased to a hundred and twenty-four scholars, and the number in the Primary School will be diminished to one hundred and eighty-five. The instructors needed for the Principal Department will be a Professor of General Physics, a Professor of Special Physics, a Professor of Languages, an Instructor in Drawing and Writing, and two Teachers of English and Mathematics. The Professors of General and Special Physics should divide between them the English and Mathematical studies of the first class, and deliver lectures in their respective departments to both classes. The Professor of Languages should be employed three hours each day in giving instruction in French and Spanish to both classes; and the Instructor in Drawing and Writing should be employed one hour each day. The Professors of General and Special Physics should reside in the college buildings. If the present Instructor of English and Mathematics be made Professor of General Physics, and the present Lecturer on Special Physics be made Professor of Special Physics, it will be necessary to provide two Teachers of English and Mathematics for the second class of sixty pupils. I believe that economy and the interests of the scholars will be alike consulted by promoting two teachers from the Primary school to this department. These ladies have, by faithful and efficient service, demonstrated their ability both to teach and govern the sixty boys of the second class; but I take the liberty to suggest, that they should not be required to do this without some additional compensation. Should these suggestions be adopted, the remaining five teachers will be sufficient to instruct the Primary School, by giving thirty-seven pupils to each of them.

It is my opinion that this plan will not increase the salaries to be paid for instruction in 1851 over those paid this year, by a sum exceeding $2,350; and, without presuming to indicate what salary ought to be paid to each officer, I may be permitted to show

by what scale of compensation the result just stated would be obtained:

	A. D. 1851.
Professor of General Physics,	$2,000
" Special "	2,000
" Languages,	600
Instructor in Drawing and Writing,	400
First Teacher of English and Mathematics,	600
Second " " "	400
	$6,000

	A. D. 1850.
Instructor in English and Mathematics,	$1,000
" French and Spanish,	1,000
Lecturer on Special Physics,	400
Teacher of Drawing and Writing,	400
Principal of First Primary School,	500
First Assistant in "	350
	$3,650

Difference $2,350.

This computation is made on the supposition that the salaries of the Instructors employed in 1850 are all paid for the entire year.

The philosophical apparatus belonging to the College is better adapted to refined original researches, than to the purposes of elementary instruction. It should therefore be reserved for the private use of the Professor of General Physics until a class of students shall have made considerable progress in physical studies; and a good working apparatus should be provided for the wants of the ensuing year. An appropriation of twelve or fifteen hundred dollars will probably be sufficient for this purpose.

The following may be enumerated among the articles of apparatus most desirable in a course of lectures for young scholars.

1. A set for illustrating the centre of gravity.
2. A set for illustrating Mechanical Powers.
3. An Atwood's machine for laws of falling bodies, and motions of the pendulum.
4. A Hydrostatic Balance, and other instruments for specific gravity.
5. An Air Pump, and set of Pneumatic apparatus.
6. Models of water pumps, and other hydraulic machines.
7. A model of a steam Engine.
8. A set for catoptrics and dioptrics.
9. An electrical machine, and the accompanying apparatus.
10. A set for illustrating the laws of Heat.
11. A set for illustrating the facts of Magnetism.
12. Various forms of Galvanic Batteries and electro-magnetic machines.
13. Apparatus for the Chemistry of solution and of the gases.

Of course the sum named above will not purchase all the pieces which are desirable under these heads, but it will enable the Professor of Natural Philosophy and Chemistry to make a beginning, and to illustrate his course of lectures with many interesting and instructive experiments.

A far more liberal expenditure would be necessary in obtaining specimens, preparations, and diagrams for a course of instruction in the various branches of Special Physics. But the lecturer in this department is already provided with ample facilities for teaching these sciences, and I am authorized to say, that so soon as he shall receive constant employment in the College, he will place the whole of his cabinet in the Institution for its use, free of any expense except the cost of cases and transportation. He is now laboring under serious disadvantage for want of the means of illustrating his lectures, and as he advances to the higher parts of his course this difficulty will become more embarrassing.

COLLEGIATE DEPARTMENT.

Mr. Girard did not bequeath his property to support a mere Asylum for Orphans, nor to endow a Primary School or an Academy for their instruction, but *to found a College.* He intended to place within the reach of the "poor white male Orphans" of this City and Commonwealth, every aid and instrument which wealth could furnish for the study of the highest branches of knowledge. To provide raiment, food, and shelter for so many destitute children, through all coming time, would indeed have been a benefaction worthy of a great and liberal mind. But while the plan of Mr. Girard includes the foster home, the common school, and the high school, these are not the ultimate results of his bequest, but the means of reaching forward to higher and nobler results. While the preparatory courses of instruction will render available to society whatever is fit for use in inferior minds, they will also give opportunity for talent and genius to crop out and show their vein. They will enable the teacher to discover among the shells and pebbles of ocean, the "gem of purest ray serene," and to cull from weed and bramble the flower which else had "blushed unseen, and wasted its sweetness on the desert air."

I have said that the time required for the best scholars to go through the course of study in the Principal Department will be two years. At the expiration of that period the scholars will be between thirteen and fourteen years of age, and it will be advisable to divide them into three divisions as follows:—

(1.) The scholars whose application, capacity, and moral character may entitle them to admission to the Collegiate Department should form the first division. Probably not less than twenty nor more than thirty per cent. of the pupils of the first class in the Principal Department each year, will be competent to pass their examination for the lowest Collegiate class.

(2.) The second division will include all the Orphans who ought to be bound out to suitable occupations as soon after they shall have attained the age of fourteen years as eligible situations can be obtained for them. In determining what boys to place in this divi-

sion, regard should be had to their physical development, their capacity to profit by continued instruction in the College, and their general character, disposition, and habits. No Orphan who may be incurably disorderly, discontented, or vicious, should be retained after the age of fourteen.

(3.) In the third division should be placed the remainder of the class, including pupils of good character and fair capacity, who promise to deserve well of the College, and especially those whose strength may not yet be equal to the hardships of a laborious occupation. These should be permitted to remain one, two, or three years longer, and to continue their studies in the Principal Department, or in such branches of the collegiate course as they may be qualified to pursue.

The appropriate time for the opening of the Collegiate Department will be the first day of January, 1852. This course should occupy four years, and a new class should be formed each year until the department shall contain four classes; the oldest and most advanced to be designated the first class, and the others, the second, third, and fourth classes in order. Thus the fourth class will correspond to the Freshmen of English and American Colleges, the third to the Sophomores, the second to the Juniors, and the first to the Seniors. Should this plan be adopted, the organization of the College will be complete on the first of January, 1855, and the first class will graduate on the first day of January, 1856.

In making out the course of study for the Collegiate Department, the Committee will doubtless consider: *First*, What can be accomplished between the age of fourteen and eighteen by the best scholars, with their utmost diligence, under the most skilful instruction; and *Second*, What branches of study, and what order in taking them up, will most perfectly combine useful and practical knowledge with sound mental culture. They will also probably see reason to depart from the ancient usage of Colleges, which requires all students, whatever their capacity or inclination, to pass through the same routine of studies. It is hoped that the time is not far distant when this bed of Procrustes, which requires the stretching of some minds beyond the symmetry of nature, and the

curtailing of the fair proportions of others, will be flung into the lumber garret of obsolete ideas. I submit that while the scheme of studies should come up to the highest standard attainable by the best students in their limited time, no scholar should be compelled to learn *nothing*, in the attempt to learn *every thing*.

The following course of Collegiate studies for Girard College, is submitted for the consideration of the Committee. It is divided into five departments, corresponding to those recommended above for the Principal School, but the instruction to be given in all of them is, of course, expected to be of a higher order.

FOURTH CLASS.

I.—*English Department.*

1. English Grammar.
2. Elocution.
3. Dramatic Reading.
4. History.
5. Composition.

II.—*Mathematics.*

1. Arithmetic, (finished.)
2. Algebra, (finished.)
3. Geometry, (commenced.)

III.—*Languages.*

1. French, (continued.)
2. Spanish, (continued.)
3. Latin, (Cornelius Nepos and Cæsar.)

IV.—*General Pysics.*

1. Primary and Secondary qualities of bodies.
2. Laws of motion and force.
3. Mechanical Powers.
4. Laws of the motion of falling bodies.
5. Theory of the Pendulum.

V.—*Special Physics.*

1. Human Anatomy and Physiology.
2. Comparative Anatomy and Physiology.

3. Animal Mechanics.
4. Natural Theology—Evidences of Design.

THIRD CLASS.

I.—*English Department.*

1. Composition.
2. History, (continued.)
3. Philosophy of the Intellect and Sensibilities.
4. American Constitutions.

II.—*Mathematics.*

1. Geometry, (finished.)
2. Plane and Spherical Trigonometry.
3. Navigation.
4. Orthographic and Stereographic Projections.

III.—*Languages.*

1. Spanish, (continued.)
2. German, (commenced.)
3. Latin—Virgil and Cicero's Orations.

IV.—*General Physics.*

1. Pneumatics.
2. Acoustics.
3. Hydrostatics.
4. Hydraulics.
5. Construction of Machines.

V.—*Special Physics.*

1. Systematic Zoology.
2. Vegetable Organography.
3. Vegetable Physiology.
4. Systematic Botany.

SECOND CLASS.

I.—*English Department.*

1. Logic.
2. Rhetoric.
3. Selected Declamations.

4. Composition.
5. Parliamentary Usage.

II.—*Mathematics.*

1. Surveying, with field practice.
2. Analytical Geometry, including Conic Sections.
3. Differential Calculus.

III.—*Languages..*

1. German, (continued.)
2. Latin—Cicero de Officiis.

IV.—*General Physics.*

1. Thermotics.
2. Light and Optics.
3. Electricity.
4. Magnetism.
5. Inorganic Chemistry.

V.—*Special Physics.*

1. Mineralogy.
2. Geology.

FIRST CLASS.

I.—*English Department.*

1. Moral Philosophy.
2. Political Economy.
3. Original Declamations.
4. Written and Extemporaneous Discussions.

II.—*Mathematics.*

1. Integral Calculus.
2. Analytical Mechanics.
3. Civil Engineering, including Topographical Drawing.

III.—*Languages.*

1. Latin,—Germania, Agricola and Histories of Tacitus.
2. French, Spanish and German, (reviewed.)

IV.—*General Physics.*

1. Organic Chemistry.
2. Chemistry applied to the Arts.
3. Agricultural Chemistry.
4. Astronomy.
5. Physical Geography and Meteorology.

V.—*Special Physics.*

1. Hygiene.
2. The Application of Anatomy and Physiology to the treatment of *wounds*, *drowning*, cases of *poisoning*, and accidents from *foul air*, in the absence of a regular practitioner.

If this course should seem to be too extensive, let it be considered; first, that no student will be required to study more branches than he can study thoroughly; second, that the scholars who will be admitted to this department, will have been selected for their superior capacity; and third, that they will have received careful and long-continued preparatory instruction.

Skilful Teachers will doubtless differ as to the order in which the various topics should be taken up, but few will object to the practical value of any one of them, either as an instrument of mental discipline, or as a useful attainment. The course in Mathematics is believed to be equal to that in the best institutions of learning in the United States; and, while the classical course is restricted within very narrow limits, that in the Natural Sciences is more extensive than in any American college with which I am acquainted. Though Latin and Greek are placed on equal footing by Mr. Girard, and neither is recommended or forbidden by his will, there are obvious reasons for introducing Latin rather than Greek, where both cannot be learned; and the time of our scholars will not be sufficient for the acquisition of both, without

neglecting other branches of greater practical utility. These deviations from the ordinary course of collegiate studies seem to be required, both by the letter and spirit of the will, and by the practical wants and tendencies of our age and people. By giving the pupils full and efficient instruction in English, Mathematics, and the Physical Sciences, we follow the direction to teach them "facts and things, rather than words and signs."

Every class in the collegiate department should recite at least three hours, and attend lecture one hour, every day, except Saturday and Sunday. But it may often be found convenient for two classes to attend together the lectures on General and Special Physics, and sometimes all the scholars, both of the Principal and Collegiate classes, may be admitted to the same lecture.

The following programmes of recitations will show how the four classes and five Professors might be fully occupied. The figures under the days of the week indicate the hours of the day.

(1.)—*Programme, arranged by Departments to indicate the Work of each Professor.*

I.—ENGLISH DEPARTMENT.

	Mond.	Tuesd.	Wed.	Thurs.	Frid.	Satur.	
First Class,	9	10	2	—	11	—	
Second Class,	11	2	—	10	3	—	
Third Class,	3	—	11	2	—	11	No. of
Fourth Class,	—	9	3	4	2	9	Recitations, 17.

II.—MATHEMATICS.

	Mond.	Tuesd.	Wed.	Thurs.	Frid.	Satur.	
First Class,	—	9	9	9	9	9	
Second Class,	10	10	10	—	10	—	
Third Class,	11	11	—	11	11	—	No. of
Fourth Class,	2	2	2	2	—	—	Recitations, 17.

III.—LANGUAGES.

	Mond.	Tuesd.	Wed.	Thurs.	Frid.	Satur.	
First Class,	2	2	—	2	2	—	
Second Class,	3	3	3	3	—	—	
Third Class,	4	4	4	4	4	—	No. of
Fourth Class,	9	—	9	9	9	—	Recitations, 17.

IV.—GENERAL PHYSICS.

	Mond.	Tuesd.	Wed.	Thurs.	Frid.	Satur.	
First Class,	10	—	10	10	10	—	
Second Class,	—	11	11	10	11	11	
Third Class,	2	2	2	—	2	—	No. of
Fourth Class,	3	3	—	3	3	—	Recitations, 17.

V.—SPECIAL PHYSICS.

	Mond.	Tuesd.	Wed.	Thurs.	Frid.	Satur.	
First Class,	11	11	11	11	—	11	
Second Class,	2	—	2	2	2	—	
Third Class,	—	3	3	3	3	—	No. of
Fourth Class,	4	4	4	—	4	—	Recitations, 17.

(2.)—*Programme, arranged by Classes to show the weekly Work of each Class.*

I.—FIRST CLASS.

	Mond.	Tuesd.	Wed.	Thurs.	Frid.	Satur.	
English,	9	10	2	—	11	—	
Mathematics,	—	9	9	9	9	9	
Languages,	2	2	—	2	2	—	
General Physics,	10	—	10	10	10	—	
Special Physics,	11	11	11	11	—	11	Total 22.

II.—SECOND CLASS.

	Mond.	Tuesd.	Wed.	Thurs.	Frid.	Satur.	
English,	11	2	—	10	3	—	
Mathematics,	10	10	10	—	10	—	
Languages,	3	3	3	3	—	—	
General Physics,	—	11	11	11	11	11	
Special Physics,	2	—	2	2	2	—	Total 21.

III.—THIRD CLASS.

	Mond.	Tuesd.	Wed.	Thurs.	Frid.	Satur.	
English,	3	—	11	2	—	11	
Mathematics,	11	11	—	11	11	—	
Languages,	4	4	4	4	4	—	
General Physics,	2	2	2	—	2	—	
Special Physics,	—	3	3	3	3	—	Total 21.

IV.—FOURTH CLASS.

	Mond.	Tuesd.	Wed.	Thurs.	Frid.	Satur.	
English,	—	9	3	4	2	9	
Mathematics,	2	2	2	2	—	—	
Languages,	9	—	9	9	9	—	
General Physics,	3	3	—	3	3	—	
Special Physics,	4	4	4	—	4	—	Total 21.

The first programme shows that each Professor will be employed in giving instruction to his classes seventeen hours every week. This would be excessive labor for those Professors who will have to prepare experiments to illustrate their lectures; but they can be relieved by so adjusting the scheme that two classes shall be present at the same lectures; and this adjustment would secure the additional advantage of giving to every successive class a repetition of each course of lectures. In many of the best Colleges this plan is adopted with the higher classes, by permitting the Juniors to attend the lectures on Natural Science with the Seniors.

The second programme indicates that the first class will be employed in the recitation room twenty-two hours, and the other classes twenty-one hours a week. But as several of these hours

will be spent in attendance at lectures which require no previous study for preparation, it is believed that the amount of duty, though apparently about one-fourth more than is required of the students of other Colleges, will not prove to be oppressive.

The committee will observe that the plan which I have proposed, contemplates a gradual organization of the Collegiate Department, and requires several years for its completion. It provides that the fourth class shall be formed in January, 1852. At that time it will be necessary to separate the department of English and Mathematics from that of General Physics, and to appoint a Professor of Mathematics. The four Professors will then divide equally between them the work of instructing the Principal Department, and the fourth collegiate class. The assistance of the two female teachers of the second class in the Principal Department, will still be required. Early in the same year a sufficient number of Orphans should be admitted to the Primary School, to replace those advanced to the Principal course, and thirty of these, as I shall demonstrate hereafter, ought to be between nine and ten years of age. During the same year such number as may be expedient of the Orphans who shall have attained the age of fourteen, should be bound out as apprentices.

In January, 1853, the fourth class will be promoted and become third, while a new fourth class will advance from the Principal Department. A Professor will then be wanted to give instruction in the English branches, and the five Professors will share equally the work of the two Collegiate classes and the Principal School.

In January, 1854, another fourth class will be received, and the classes previously admitted will become third and second. It will then be necessary to place an assistant teacher in the first class of the Principal Department. The Professors will continue to give instruction in the Principal School, and will take charge of the three Collegiate classes.

And finally, in January, 1855, all the Collegiate classes will be organized, and the time of the Professors will be wholly occupied with the duties of their respective chairs. It will then be advisable to place a Preceptor or Master, at the head of the Principal Department, who, with the aid of his assistant, will give instruction to the

first class of that school, while the two female instructors will continue to teach the second class in the same school.

The three Departments of instruction thus organized, will employ fourteen persons at the probable cost for salaries of $14,600 a year. Thus:

Collegiate Department—five Professors, ($2,000 each,)			$10,000
Principal Department—Master, - - -	$1,200		
" " Instructor, - -	800		
" " First Female Instructor,	600		
" " Second Female Instructor,	400		
			3,000
Primary Department—Principal Teacher, - -	500		
" " First Assistant Teacher, -	350		
" " 3 Second Assistant Teachers, ($250 each,) - -	750		
			1,600
Total, - -			$14,600

To this sum will be added whatever may be paid from time to time for instruction in vocal music, penmanship, drawing, phonography, and such other arts as temporary instructors may be employed to teach.

As soon as the means of the Institution will justify the expenditure, a permanent department should be established in the College for instruction in Drawing and the Arts of Design.

It may be desirable to employ three Professors instead of one, in the department of languages, in order that each modern language in the course may be taught by a native of the country in which it is spoken. But it would be expedient, in that case, to employ each for a less number of hours per week, without requiring their residence in the College, and so to graduate their salaries as not to increase the cost of the department, thus:—

Professor of French and Latin, (9 hours a week,) - -		$1,000
Do. Spanish, (4 hours a week,) - -		500
Do. German, (4 hours a week,) - -		500
		$2,000

As the successive classes of the Collegiate Department will be received from the Principal School, and those of the Principal from the Primary, the Committee will perceive the importance of admitting annually to the institution such number of new pupils, and of such age, that the higher departments may never fail to receive their yearly supply of scholars at the required times. For, if, at the beginning of any year, a class or classes should be wanting, one or more of the instructors would remain partly or wholly unoccupied, while the harmony and beauty of the entire plan would be impaired. In order to determine the number of orphans to be received each year, and to what age (within the limits of six and ten) they must have attained, the Committee will first inquire what is the greatest number of orphans the institution can support yearly for the next six years, with the means which will be at its disposal, and what is the least number of collegiate students in the four classes, that will justify incurring the expense of that department? I will assume sixty for the latter number, and three hundred and forty, which is the highest number the present dwellings will lodge, as the former. It may also be expected that, on an average, about forty pupils above the age of fourteen will remain over in the Principal Department, waiting to be bound out. But as not more than one-fourth of all who are admitted to the institution will ever be qualified for the collegiate course, not less than sixty must be received into the Primary school every year, after 1851, to keep up the numbers of the Principal school, and give an annual supply of fifteen to the collegiate department. It is therefore plain that the average length of time the orphans can remain in the college will be five years and two-thirds, and that all the recruits must be between nine and ten years of age at the time of their admission. If the institution could support four hundred, then sixty could be annually admitted at the average age of between eight and nine years; and, if it had means to support four hundred and sixty orphans, then sixty could be annually received at the average age of between seven and eight years. If the policy of receiving boys at the age of between six and seven years be adopted, and the entire number be limited to three hundred and forty, (as it must be until additional dwellings shall be erected and

furnished,) then not more than forty can be received yearly, and the collegiate classes will be altogether too small.

There is, undoubtedly, a moral advantage in receiving the orphans at the earliest allowable age, before their habits and characters have been formed. But they derive little benefit, intellectually, from so early an admission; for it is believed that two boys of equal age and capacity, both ignorant of the alphabet when admitted, and one being received at six years of age and the other at eight, will be found in the same class at fourteen. The benefits of the institution will be extended to a greater number of Orphans, its expenses will be diminished, and an adequate supply of scholars will be provided for the principal and collegiate classes, by receiving the Orphans, whenever this may be practicable, at the most advanced age allowed by the will.

An inspection of the dates of birth shows that six of the orphans, now residing in the college, will be between thirteen and fourteen years of age on the first day of January next; seventy-five, between twelve and thirteen; sixty-five, between eleven and twelve; sixty-two, between ten and eleven; fifty-two, between nine and ten; thirty-four, between eight and nine; and fifteen, between seven and eight. While, therefore, the primary school has in training a sufficient number of pupils of the right age to form classes in the principal department in 1851 and 1852, it appears that the number will be deficient in 1853, unless ten or twelve new pupils, between nine and ten years of age, be admitted early in 1851. It is also evident that about thirty of the same age must be admitted in 1852 to fill up the Principal class in 1854; and about fifty of the same age will be wanted in 1853 to supply the principal class of 1855. Sixty will be required each year after 1853.

I shall take occasion, as early as practicable, to offer the Committee another report, containing views and suggestions of a more general character than the present, on the subject of education in Girard College. In that paper, I propose to treat of the different modes of governing boys of different ages, the kind of discipline and training adapted to our primary, principal and collegiate scholars, the question of rewards and punishments,

and the methods of physical, economical, intellectual, moral and religious culture. The question of manual labor, as a part of the physical education of students, will there find its appropriate place. But, as the Board of Directors have instructed me to incorporate my views on that topic with the present report, I submit a few brief suggestions.

While Mr Girard does not expressly provide for the employment of the pupils in manual labor, the college is undoubtedly authorized to employ them in that manner for recreation and rational exercise.

After the age of ten years, the pupils may be usefully employed a few hours each week, in the following occupations, without encroaching upon school and study hours: (1.) In certain personal services for themselves, such as brushing their own clothing, cleaning and polishing their own boots, &c. (2.) In such agricultural and horticultural work as may be adapted to their strength and intelligence. (3.) In keeping the walks in good order, and making improvements upon the grounds. In these occupations they should be under the direction of the Janitor, Prefects, Gardener or Steward.

When the pupils shall have attained the age of twelve years they may be employed, during a part of their time of recreation, in the workshops, under the charge of a Prefect or of the Carpenter. They should be furnished with tools and materials for the manufacture of playthings, and for the construction of gymnastic apparatus. Materials may also be provided for such as may desire to manufacture salable articles for their own profit. After the payment of the materials used in such manufacture, each maker should receive half of the profits of his work, that he may learn the value of industry and the uses of money, and the other half should be reserved and paid over to him whenever he leaves the institution, to teach him the advantages of accumulation.

All which is respectfully submitted.

WILLIAM H. ALLEN.